

Q430 090
6/03 OIPESerial Number: 09/998,284CRF Processing Date: 12/11/2001
Edited by: AV
Verified by: AV (STIC stat) Changed a file from non-ASCII to ASCII**ENTERED** Changed the margins in cases where the sequence text was 'wrapped' down to the next line. Edited a formal error in the Current Application Data section, specifically: Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____ Added the mandatory heading and subheadings for 'Current Application Data'. Edited the 'Number of Sequences' field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included: _____ Deleted extra, invalid, headings used by an applicant, specifically: Deleted: non-ASCII 'garbage' at the beginning/end of files; secretary initials/filename at end of file;
 page numbers throughout text; other invalid text, such as _____ Inserted mandatory headings, specifically: _____ Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A 'Hard Page Break' code was inserted by the applicant. All occurrences had to be deleted. Deleted ending stop codon in amino acid sequences and adjusted the '(A)Length:' field accordingly (error due to a PatentIn bug). Sequences corrected: _____ Other: _____

OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/998,284

DATE: 12/11/2001
TIME: 17:00:33

Input Set : A:\PTO.AMC.txt
Output Set: N:\CRF3\12112001\I998284.raw

2.

3 <110> APPLICANT: POULSEN, et al.
5 <120> TITLE OF INVENTION: COMPOSITION
7 <130> FILE REFERENCE: 674509-2035
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/998,284
C--> 9 <141> CURRENT FILING DATE: 2001-11-30
9 <150> PRIOR APPLICATION NUMBER: PCT/IB00/00829
10 <151> PRIOR FILING DATE: 2000-06-02
12 <150> PRIOR APPLICATION NUMBER: GB 9913050.2
13 <151> PRIOR FILING DATE: 1999-06-04
15 <160> NUMBER OF SEQ ID NOS: 2
17 <170> SOFTWARE: PatentIn version 3.1
19 <210> SEQ ID NO: 1
20 <211> LENGTH: 1644
21 <212> TYPE: DNA
22 <213> ORGANISM: Chondrus crispus
24 <400> SEQUENCE: 1
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27 ccagacaagg ctgaccctaa attgccccatcc atgaagcaag gtttcaacag aagatggatt 120
29 ggtaccaaca tcgatttcgt ttacgtcggt tacactccac aaggtgcttg tactgctttg 180
31 gacagagcta tggaaaagtg ttctccaggta accgtcagaa tcgtttctgg tggtcactgt 240
33 tacgaagact tcgtttcga cgaatgtgtc aaggctatta tcaacgttac tggtttgggt 300
35 gaatctgggtt acgacgacga tagaggttac ttcgtctctt ccggtgacac caactgggt 360
37 tccttcaaga ccttggtcag agaccacggta agagtttgc caggtggttc ctgttactcc 420
39 gtcggtttgg gtggtcacat tgtcggtgga ggtgacggta tttggccag attgcacgg 480
41 ttgccagtcg attgggttac cggtggttac gttgtcgta agccagtctt gaccgaagac 540
43 tctgttctta agtacgttca caaggattcc gaaggttaacg acggtgagtt gttttggct 600
45 cacactggtg gaggtggagg taacttcggt attatcacca aatactactt caaggatttgc 660
47 ccaatgtctc caagaggtgt catcgcttct aacttacact tctcttggta cggtttact 720
49 agagatgcct tgcaagattt gttgactaag tacttcaagt tggctagatg tgattggaa 780
51 aatactgttg gtaagttcca aatcttccac caagcagctg aagagtttgc tatgtacttg 840
53 tatacatcct actctaaca cggccgagaga gaagttgcc aagacagaca ctatcatttgc 900
55 gaggctgaca ttgaacagat ctacaaaaca tgcgagccta ccaaagctct tggtggtcat 960
57 gctggttggg ctcccttccc tggtagaccc agaaagagac acacatccaa gacttcttat 1020
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61 ggtcctaattc agagaggtaa gtacaagtct gcttacatga tcaaggactt tccagacttc 1140
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69 caggaagaag acaaggatgc agttaacttgc aagtggatta gagacttttgc gaggagatg 1380
71 tatgagcctt atgggtgggt tccagaccct aacactcagg ttgagagtgg taaaggtgtt 1440
73 tttgagggat gctacttcaa ctaccctgtat gttgacttga acaactggaa gaacggtaag 1500
75 tatggtgccct tggacttta cttttgggtt aacctgaaca gattgatcaa ggccaaatgg 1560
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79 gagcctaaggc agactaaata gtag 1644
82 <210> SEQ ID NO: 2
83 <211> LENGTH: 546
84 <212> TYPE: PRT

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85 <213> ORGANISM: Chondrus crispus
87 <400> SEQUENCE: 2
89 Met Ala Thr Leu Pro Gln Lys Asp Pro Gly Tyr Ile Val Ile Asp Val
90 1 5 10 15
93 Asn Ala Gly Thr Pro Asp Lys Pro Asp Pro Arg Leu Pro Ser Met Lys
94 20 25 30
97 Gln Gly Phe Asn Arg Arg Trp Ile Gly Thr Asn Ile Asp Phe Val Tyr
98 35 40 45
101 Val Val Tyr Thr Pro Gln Gly Ala Cys Thr Ala Leu Asp Arg Ala Met
102 50 55 60
105 Glu Lys Cys Ser Pro Gly Thr Val Arg Ile Val Ser Gly Gly His Cys
106 65 70 75 80
109 Tyr Glu Asp Phe Val Phe Asp Glu Cys Val Lys Ala Ile Ile Asn Val
110 85 90 95
113 Thr Gly Leu Val Glu Ser Gly Tyr Asp Asp Asp Arg Gly Tyr Phe Val
114 100 105 110
117 Ser Ser Gly Asp Thr Asn Trp Gly Ser Phe Lys Thr Leu Phe Arg Asp
118 115 120 125
121 His Gly Arg Val Leu Pro Gly Gly Ser Cys Tyr Ser Val Gly Leu Gly
122 130 135 140
125 Gly His Ile Val Gly Gly Asp Gly Ile Leu Ala Arg Leu His Gly
126 145 150 155 160
129 Leu Pro Val Asp Trp Leu Ser Gly Val Glu Val Val Val Lys Pro Val
130 165 170 175
133 Leu Thr Glu Asp Ser Val Leu Lys Tyr Val His Lys Asp Ser Glu Gly
134 180 185 190
137 Asn Asp Gly Glu Leu Phe Trp Ala His Thr Gly Gly Gly Gly Asn
138 195 200 205
141 Phe Gly Ile Ile Thr Lys Tyr Tyr Phe Lys Asp Leu Pro Met Ser Pro
142 210 215 220
145 Arg Gly Val Ile Ala Ser Asn Leu His Phe Ser Trp Asp Gly Phe Thr
146 225 230 235 240
149 Arg Asp Ala Leu Gln Asp Leu Leu Thr Lys Tyr Phe Lys Leu Ala Arg
150 245 250 255
153 Cys Asp Trp Lys Asn Thr Val Gly Lys Phe Gln Ile Phe His Gln Ala
154 260 265 270
157 Ala Glu Glu Phe Val Met Tyr Leu Tyr Thr Ser Tyr Ser Asn Asp Ala
158 275 280 285
161 Glu Arg Glu Val Ala Gln Asp Arg His Tyr His Leu Glu Ala Asp Ile
162 290 295 300
165 Glu Gln Ile Tyr Lys Thr Cys Glu Pro Thr Lys Ala Leu Gly Gly His
166 305 310 315 320
169 Ala Gly Trp Ala Pro Phe Pro Val Arg Pro Arg Lys Arg His Thr Ser
170 325 330 335
173 Lys Thr Ser Tyr Met His Asp Glu Thr Met Asp Tyr Pro Phe Tyr Ala
174 340 345 350
177 Leu Thr Glu Thr Ile Asn Gly Ser Gly Pro Asn Gln Arg Gly Lys Tyr
178 355 360 365
181 Lys Ser Ala Tyr Met Ile Lys Asp Phe Pro Asp Phe Gln Ile Asp Val

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182	370	375	380
185	Ile Trp Lys Tyr Leu Thr Glu Val Pro Asp Gly Leu Thr Ser Ala Glu		
186	385	390	395 400
189	Met Lys Asp Ala Leu Leu Gln Val Asp Met Phe Gly Gly Glu Ile His		
190	405	410	415
193	Lys Val Val Trp Asp Ala Thr Ala Val Ala Gln Arg Glu Tyr Ile Ile		
194	420	425	430
197	Lys Leu Gln Tyr Gln Thr Tyr Trp Gln Glu Glu Asp Lys Asp Ala Val		
198	435	440	445
201	Asn Leu Lys Trp Ile Arg Asp Phe Tyr Glu Glu Met Tyr Glu Pro Tyr		
202	450	455	460
205	Gly Gly Val Pro Asp Pro Asn Thr Gln Val Glu Ser Gly Lys Gly Val		
206	465	470	475 480
209	Phe Glu Gly Cys Tyr Phe Asn Tyr Pro Asp Val Asp Leu Asn Asn Trp		
210	485	490	495
213	Lys Asn Gly Lys Tyr Gly Ala Leu Glu Leu Tyr Phe Leu Gly Asn Leu		
214	500	505	510
217	Asn Arg Leu Ile Lys Ala Lys Trp Leu Trp Asp Pro Asn Glu Ile Phe		
218	515	520	525
221	Thr Asn Lys Gln Ser Ile Pro Thr Lys Pro Leu Lys Glu Pro Lys Gln		
222	530	535	540
225	Thr Lys		
226	545		

VERIFICATION SUMMARY

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L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date